

Abstract

An abstract of the invention is attached hereto.

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A welding unit including a welding apparatus with a welding torch unit connectable thereto via a hose pack. At least one control device, a welding current source and optionally a wire feeder unit are arranged in the welding apparatus. The welding torch unit is formed by at least two separate welding torches intended to carry out at least two independent, separate welding processes. The first welding torch is configured to carry out a welding process and at least a second welding torch is configured to carry out a cold-metal transfer welding process with a forward-backward movement of a welding wire, and that a device for synchronizing the welding processes carried out by the at least two welding torches is provided.